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REMARKS

Claims 1-3, 5-8 and 10-16 remain in the instant application. No new matter has been added.

Claims 1-16 were rejected under the first paragraph of 35 U.S.C. §112 as failing to comply with the written description requirement because the term "aliphatic olefinic monomer" is alleged to not have support in the instant specification. Applicants have deleted the word "aliphatic" from independent claims 1 and 16 such that this rejection is now obviated and should be kindly removed.

Claims 1 and 16 were also rejected under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner specifically alleges that "it is unclear if the olefinic monomers [in claims 1 and 16] would be reacted to produce polymer during the contacting step. In other words, while the claimed process is a chemical production process, a chemical reaction step is not recited." Applicants will attempt to clarify the teachings of claims 1 and 16 for the Examiner. Firstly, applicants kindly point out that the Examiner erroneously stated that instant claims 1 and 16 teach reacting olefinic monomers to produce "polymer" during the contacting step. Instead, claims 1 and 16 clearly teach methods for producing oligomers having less than 40 carbon atoms. Secondly, applicants have added the phrase "whereby an oligomer is formed" to the end of claims 1 and 16. This should clarify that the contacting step results in a chemical reaction between the olefinic monomer and the catalyst composition to form an oligomer. Moreover, the contacting steps of claims 1 and 16 are performed under oligomerization conditions, which will result in a chemical reaction between the olefinic monomers and the catalyst composition. The above amendments and arguments should clarify the teachings of claims 1 and 16 for the Examiner.

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The phrase "such as" in claim 4 was rejected as being indefinite. This rejection is rendered moot by the instant cancellation of claim 4.

Based on the above responses and amendments, applicants respectfully request that the rejections under the first and second paragraphs of 35 U.S.C. §112 be removed.

Claims 1-4, 9 and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by the English Abstract of Japanese Patent No. 70007522B. The Examiner avers that the Japanese Patent discloses a step of contacting ethylene in the presence of a catalyst substantially the same as applicants' claimed process. Applicants respectfully disagree with this rejection. First, applicants amended claim 1 to further distinguish the olefinic monomers used in the instant oligomerization process from the disclosure in the Japanese Patent of reacting butadiene and ethylene. Amended claim 1 now teaches that one or a mixture of the olefinic monomers from dependent claim 9 (which is now cancelled from the instant case) are contacted with a catalyst composition to form a oligomer. Second, the Japanese Patent discloses a co-oligomerization reaction, while claim 1 teaches a homo-oligomerization reaction. And last, the Japanese Patent's disclosure of reacting butadiene with ethylene does not teach each and every element (or limitation) of instant claims 1-3 and 10, so this §102(b) rejection is wholly inappropriate. Thus, this §102(b) rejection should be properly removed.

Claims 1-5 and 7 were rejected under 35 U.S.C. §103(a) as unpatentable over the Po, et al. reference. It is alleged that Po, et al. discloses "contacting ... styrene (olefinic monomer) with a catalyst substantially the same as applicants' claimed in the presence of solvent." Applicants respectfully disagree with this rejection. In view of the amendments made to instant claim 1, applicants believe that claim 1 and the claims

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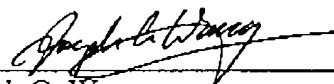
depending therefrom are not obvious in view of Po, et al. The olefinic monomers taught in amended claim 1 are quite distinguishable from the styrene monomer used in Po, et al., such that one skilled in the art would not be motivated to run the oligomerization process of instant claim 1 from the disclosure of polymerization in Po, et al. Moreover, one skilled in the art would not be motivated to oligomerize the olefinic monomers taught in present claim 1 based on the disclosure in Po, et al. of styrene polymerization. Hence, this §103(a) rejection should be removed.

The Examiner also rejected claims 6, 8 and 11-16 under 35 U.S.C. §103(a) in view of Po, et al., the previously cited Japanese Patent, Masters, et al. (U.S. Patent No. 4,533,651), and Wang, et al. (U.S. Patent No. 6,120,692). For the reasons specified in applicants' arguments dated May 15, 2003, applicants respectfully disagree with these rejections and are of the opinion that the cited claims are clearly distinguishable from the listed references.

In view of the foregoing comments and amendments, applicants kindly request reconsideration of the application. Applicants believe the case is now in condition for allowance and respectfully request the Examiner to pass the case to issue at an early date.

EXXONMOBIL

Respectfully submitted,


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☒ Pursuant to 37 CFR 1.34(a)

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